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WHEN TO EXECUTE THE COUNTERSTROKE

bу

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9 May 1986

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REPORT DOCUMENTATION PAGE								Form Approved OMB No 0704-0188 Exp. Date Jun 30, 1986		
1a REPORT SECURITY CLASSIFICATION					1b. RESTRICTIVE MARKINGS					
	UNCLASSIFIED									
2a SECURITY CLASSIFICATION AUTHORITY					3. DISTRIBUTION/AVAILABILITY OF REPORT					
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED					
4. PERFORMIN	IG ORGANIZAT	ION REP	ORT NUMBE	R(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)					
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FORT LEAVENWORTH, KANSAS 66027-6900					}					
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8c. ADDRESS (	8c. ADDRESS (City, State, and ZIP Code)				10 SOURCE OF FUNDING NUMBERS					
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12. PERSONAL	AUTHOR(S)			)						
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School of Advanced Military Studies Monograph Approval

Name of Student: Major John P. Drinkwater

Title of Monograph: When to Hit the Counterstroke

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Director, Graduate
Degree Programs

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#### **ABSTRACT**

WHEN TO EXECUTE THE COUNTERSTROKE, by Major John P. Drinkwater, USA, 36 pages.

This paper examines the adequacy of current AirLand Battle doctrine in assisting the operational commander in making his decision on when to counterattack at the operational level against Warsaw Pact forces in a war in Central Europe. It provides a comparative analysis of current doctrine with the historical experience of Field Marshall Erich von Manstein during his winter campaign in southern Russia and the Urraine when he counterattacked against the Soviets' Operations STAR and GALLOF in February and March, 1943. It identifies specific considerations of Manstein, assesses how they affected the outcome of the campaign, and examines their implications for the US Army as it continues to develop its own operational doctrine and style.

The conclusion of the study is that while the doctrine in FM 100-5 is not wholly supported by Manstein's experience, it does reflect the interdecendent relationship of the myriad conditions of warfare. Manstein understood the conceptual relationships although he considered certain factors that FM 100-5 does not specifically relate to tising. The most important implication of his experience, however, is that understanding the three fundamental issues which FM 100-5 identifies as constituting operational art is essential to making decisions in first of operational-level counterattacks.

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### WHEN TO EXECUTE THE COUNTERSTROKE

Even when the only point of the war is to maintain the status quo, the fact remains that merely parrying a blow ques against the essential nature of war, which certainly does not consist merely in enduring. Once the defender has gained an important advantage, he must strike back, or he will court destruction.

Carl von Clausewitz, On War<sup>1</sup>

## Introduction

A crucial warfighting problem facing operational-level commanders is when, in the conduct of a defense, should they transition to the offensive, that is, when should they strike with Clausewitz's "flashing sword of venocance" in order to defeat a large enemy force. Although the issue of timing the counterstroke is germane in any defensive operation, the problem is best illustrated against a NATO backdrop. War in Central Europe would involve a direct confrontation with Soviet and Warsaw Pact forces instead of third-world Soviet surrogates, a clearer delineation between the levels of war than one might find in a contingency theater, and large-unit manuever at echelons above corps. Arguably, the situation would be one in which NATO forces are given whelmingly outnumbered with very little prospect for the combat power ratio to improve. This paper will examine the adequacy of current Airland Battle doctrine in assisting the operational commander in maring his decision to strike a counterblow in light of historical experience.

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Three basic questions need to be addressed: Why is timing of a counterstroke important in the NATO context? What does history suggest about the timing issue at the operational level? What are the implications of history for the U.S. Army as it continues to develop its own doctrine on the operational art?

### The NATO Context:

A cornerstone of the integrity of the NATO Alliance is its policy of maintaining and restoring the territorial integrity of member nations if they are attacked. Although NATO is principally a defensive alliance which relies on deterrence, the linchpin of its deterrent strategy is the threat of nuclear escalation, and its bona fide is the existence of a conventional force capable of defeating any attack short of a massive invasion. The underlying assumption is that NATO would not make a preemptive strike but would be on the defensive at the start of a war. Clearly the strategy has significant implications at the operational level when planning and conducting a defensive campaign or major operations vis-a-vis Clausewitz's theories on the defensive.

Since the spectre of nuclear escalation is so catastrophic and since member nations believe in their territorial sanctity, the notion that we will not allow NATO forces to be pushed back very far before we consider deliberate escalation suggests that an operational defense in Sentral Europe needs to restore the territorial integrity of the Alliance through operational counterstrokes<sup>2</sup> before the Soviets cross an ill-defined

tripwire of escalation. Although Clausewitz says that time unused accrues to the advantage of the defender, he also insists that "...retaliation is fundamental to all defense;" in other words, one must counterattack when the advantage of waiting no longer obtains. Within the NATO scenario this could certainly occur before the attacker has overextended himself or become exhausted. The challenge to the operational commander, therefore, is to decide how, when, and where to strike the retaliatory blow consistent with the strategic aims of restoring friendly territory, but before the nuclear tripwire is crossed.

Von Mellenthin, Stolfi, and Sobik, in their recent book. NATO Under Attack, assert that a conventional defensive campaign in NATO is winnable. They argue that winning calls for "...swift, mobile counterthrusts..." and "...that commanders be set free to make bold and unexpected counterattacks within a strategy of forward defense." Their assertion that a war in Central Europe is winnable with conventional forces reinforces Clausewitz's axiom on the importance of counterattacks and, in juxtoposition with winning before we hit the triowire, makes the problem of determining when to execute operational-level counterattacks a critical dilemma facing the operational commander within the context of his defensive campaign.

### The Relevance of Historical Analogy:

Although FM 100-5, currently the principal source of Aircand Battle doctrine at the operational level, reflects the integral role that

offensive operations play in a successful defense, it seems inadequate in its treatment of factors that the commander should consider in deciding when to strike with Clausewitz's "flashing sword of vengeance" at the operational level. The apparent implication is that one plans and executes it like any other offensive operation. To draw such a conclusion, however, might very well be shortsighted. The problem is particularly relevant as the U.S. Army develops its own unique operational style of fighting, especially in Europe where the threat of a conventional war with the Warsaw Pact still poses the greatest risk.

In trying to come to grips with the timing issue, especially as it relates to our potential adversaries in Central Europe, a comparative analysis of a relevant historical experience with current doctrine could be particularly instructive about the adequacy of the latter in terms of ends and means. Assessing the right time to execute operational-level counterattacks against a Soviet offensive should depend on factors which have historical precedents in the German experience against the Soviets on the Eastern Front during World War II, particularly that of Manstein in his winter campaign in southern Russia and the Ukraine when he counterattacked against the Soviets' Operations STAR and GALLOP in February and March, 1943.

Manstein provides an example of a past adversary of the Soviets who achieved great operational success under extremely adverse conditions similar to those facing the U.S. Army in Europe today. Although the Germans had passed their strategic offensive culminating point, they

still represented an operationally potent adversary who would not reach the decisive point in the war on the Eastern Front until Kursk in July. 1943. Likewise, the Soviets had developed considerable sochistication in operational art. They were beginning to apply effectively the lessons they had learned during the disastrous first year. The relative sophistication between the Germans and the Soviets is analogous to that currently existing between the U.S. Army and the Warsaw Pact. Secondly. Manstein was preatly outnumbered by the overwhelming strength of the Soviet Army. Today's scenarios for Central Europe assume a similar numerical imbalance in favor of the Warsaw Pact. Most important. however, the requirement for Manstein to restore German control of the Belgorod-Kharkov region is analogous to our defensive posture in Central Europe wherein the political policy of NATO dictates the maintenance or restoration of the status oup ante.

One could initially argue that the factors that apply at the tactical level apply equally as well at the operational level. This would have some inherent acceal to many of us because ours is still a tactically oriented army. On the other hand, history suggests that certain fundamental differences exist between the two levels of war that have great impact on the timing of operational-level counterattacks, the principal one being the concept of manuever. According to Wallace P. Franz, "Operational manuaver generally involves displacement of forces, while tactical manuever involves the concentration of fires. Eactics is based chiefly on firegower, and thus, limited to the battlefield and is the actual execution of force." Whereas tactical units can respond

fairly rapidly to changes in mission, as Balck so ably demonstrated on the Chir River in December of 1942, operational units tend toward inertia. Consequently, adaptation to changing conditions on the battlefield is not immediate. The operational commander must anticipate the need to change direction in both time and space, usually days and sometimes weeks in advance. He is more concerned, therefore, with anticipation than he is with execution. Timing, then, in the operational sense is a problem of making educated quesses about the future state of a campaign or major operation in light of factors which could effect its outcome. Manstein a campaign in Southern Russia is a classic example which illustrates some of these important considerations.

### Situation of the Southern Wing

The situation facing Manstein in February, 1943 had been developing since the German's allied armies began to collapse north of Stalingrad in late 1942. By early January 1943, Manstein had seen that a strategically valuable objective for the Soviets was the cutting off of the southern wing of the German Army on the Eastern Front by enveloping them from the northwest thereby isolating Army Group A in the Caucusus, pushing the Don Army Group against the Sea of Azov, and cutting off von Kleist's Army Group in the Crimea. If that occurred, the southern wing's critical lines of communication across the Dnieper River at Zaporochye and Dnepropetrovsk would be severed and the army groups would face destruction on a scale which would make Stalingrad pale in comparison. The situation reached crisis proportions by mid-January with the further collapse of allied armies in Army Group B's sector between Voroshilovgrad and Belggroud. The Soviets were presented with a clear opcortunity for a decisive victory. 6

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As Manstein pondered the implications for future operations, he could see that the fundamental issue was whether or not the Germans could retain control of the Donetz basin. Although the German war economy arquably relied on Donetz coal, the risk to the southern wind of getting cut off completely called into question the wisdom of trying to hold the Don-Donetz salient with insufficient forces. Manstein concluded that if Hitler insisted on holding the salient, the German Army in the south would not be able to conduct either a viable strategic defensive or an

offensive out of that salient because of the threat to its flank and the lack of sufficient forces to secure the entire front. The Soviets would be able to dictate the terms of battle. Consequently, he considered it absolutely essential to withdraw back to the Dnieper; he realized that the only viable strategy lay in the potential strength of the defensive—striking with the "flashing sword of vengeance". The position of the Axis forces, however, would have to be improved by withdrawing westward in order to (i) shorten the front lines. (2) reduce the threat to the LOCs that were stretched all the way to Rostoy, and (3) gain a central position from which to counterattack what he saw as the inevitable continuation of a Soviet offensive designed to cut off the southern group of forces.

Manstein's decision to leapfrog forces from the area south of the Don to the middle Donetz was reinforced by the continuing crisis on his northern flank. Army Group B wanted to withdraw behind the Aidar River to Starobyelsk after the Hungarian Army collapsed. What developed. however, was a wide dap which opened up to the north of Voroshilovorad, weakly defended by isolated elements offering only token and descerate resistance. At the time he was not counting on the SS Panzer Corps being transferred to him. Therefore, he foresaw the danger of being outflanked to the west on the northern wing of his army droup. His assessment of Soviet capabilities and his own vulnerabilities would have considerable impact on how he tried to shape the battle later in January and in early February.

#### Key Considerations of Manstein

The purpose of briefly reconstructing the campaign's formative stages east of the Don River is to lay out the historical background against which we might see inside the mind of possibly the finest operational commander of World War II. The objective is to isolate the critical factors that he considered in deciding when to strike the counterblow against the Soviet operations GHLLOP and STAR of the Southwestern and Voronezh Fronts respectively. Did he time his counterstroke as described in our current operational doctrine or were there factors peculiar to his specific circumstances? More importantly, what might we extrapolate from his experience for the development of a distinctively American operational style of warfighting?

### Soviet Advantages:

Underlying the entire campaign from the collapse of the German Sixth Army in Stalingrad to the destruction of more than three Soviet Armies by the time Manstein retook Kharkov and Belgorod were two significant conditions that tempered all of his planning and operations. The first was an overwhelming superiority in numbers by the Soviets—a ratio of roughly seven to one (341 Soviet formations vs. 32 German divisions). The second was the relative freedom of action enjoyed by the Soviets because of the shorter distances for them to the vital crossings over the Sovieter River. The danger posed by these two evergreent conditions was the cutting off the southern wing of the German Army by the Soviets which

could inevitably result in the destruction of Manstein's Army Group as well as Kleist's Army Group in the Crimea and on the Kuban Peninsula. The danger they bosed underscored Manstein's arguments on the necessity to withdraw west of the Donetz and Mius Rivers in order to deny the Soviets a decisive, strategic victory.

#### Anticipation of Soviet Capabilities:

Another major consideration which effected Manstein's conduct of the campaign in its early stages was his unique ability to anticipate the course of events. Unfortunately, Hitler's intransigence on giving up the territory east of the Donetz and his inability to think more than a few days out on operational matters severely handicapped Manstein. Manstein, in contrast, perceived well in advance the Soviets' intention to cut off the southern wind of the German Army by seizing the crossings over the Dnieper at Dnepropetroysk and Zaporozhe. In his post-war memoirs, he captured the essence of anticipation as it effects the course of a campaign:

Now, all considerations of an operational nature are ultimately based—especially when one has lost the initiative to the enemy—on appreciations or hypotheses regarding the course of action which the enemy may be expected to take. While no one can prove beforehand that a situation will develop in such—and—such a way, the only successful military commander is the one who can think ahead. He must be able to see through the veil in which the enemy's future actions are always wrapped, at least to the extent of correctly judging the possibilities open to both the enemy and himself. <sup>10</sup>

After the collapse of the allied armies to the northwest of Stalingrad. Manstein could foresee that a strategically valuable, and at

that time achievable, objective of the Soviets could be the cutting of the lines of communication which crossed the Dnieper and supplied the entire southern wing of German forces. Hitler's insistence on rigidly holding onto his gains conflicted with Manstein's view on the single greatest advantage that the Germans had over the Soviets, that of operational mobility. Manstein realized that to maintain even a purely defensive campaion depended on switching "...forces from [his] eastern to this] western wing in time to intercept the enemy's outflanking movements as they gradually extended further and further west." 11

### Operational Reserves:

In addition to these major considerations, Manstein appears to have taken at least two other significant factors into account in deciding when to counterattack. The most significant factor, and one closely related to his ability to anticipate, was the availability and positioning of operational-level reserves. (initially, the problem confronting Manstein was a complete lack of any reserves with which he could counterattack against Soviet outflanking movements in the vicinity of Voroshilovorad. The struggle to relieve the beleadured Sixth Hrmy in Stalingrad and the subsequent fight by Fourth Panzer Army and Hrmy Decachment Hollidt to keep Army Group A's evacuation routes from the Caucusus precluded the flexibility of a reserve. As early as 19 January, when holding the Donetz basin was still a strategic objective, Manstein had seen the need for an operational reserve in the vicinity of Kharkoy. But he also realized that the SS Panzer Corps assembling in the area of

Kharkov would not be operational until mid-February at the earliest. Which meant that it could not stop a major penetration by the Soviet Sixth Army nor could it protect the northern flank of the  $\hat{\nu}$ on Army Group doubtful.  $^{12}$ 

Despite the lack of a reserve, he was already anticipating the decisive place for a counterstroke. He knew that if he were to be successful in maintaining the vital lines of communication he would have to assemble a credible force in a central position between the Unieper and the Donetz. Before he could do this, however, he would have to fight a purely defensive battle just to preserve his force. Fortunately, the crisis in Army Group B is sector in mid-January, brought about by the collapse of the allied armies, apparently convinced Hitler to allow the withdrawal of the First Panzer Army through the Rostov corridor. Manstein was able, therefore, to commit General von Mackenson is First Panzer Hrmy to the area around Slavyansk to what would develop as the southern shoulder of the major penetration by the Soviet Sixth Army and Mobile Group Popoy. But he still did not have a reserve and was yet to be relieved of the mission to hold the Donetz basin.

Not until 6 February did Hitler relent to a withdrawal behind the Mius and to the operational freedom of action so descerately wanted by Manstein. It would be almost two weeks, however, before the Fourth Panzer, which was traveling by road and rail, would be available in a central position to affect the battle. Hitler's reluctance to adjust strategic goals to the operational realities facing the Don Army Group

after the collapse of the allied armies and the annihilation of the Sixth Army at Stalingrad had cost Manstein valuable time in constituting an operational reserve, time which was not passing unused by the Soviets and. therefore, not accruing to the advantage of the Germans.

During the conference on a February, Manstein tried to communicate to Hitler his appreciation for the operational necessity of having his own reserve:

...no counter-thrust by the SS Panzer Corps could be considered adequate to intercept the wide outflanking movement which the enemy would make....It was absolutely essential, therefore, that First Panzer Army, now on its way to the Middle Donetz, should be immediately followed by Fourth Panzer Army to intercept the still not acute, but nonetheless inevitable threat of an enemy envelopment between the Donetz and Dnieper. Only then would it be possible, in co-operation with the approaching reinforcements, to restore the situation on the German southern wing of the Eastern Front. 13

Although the SS Panzer Corps and Army Detachment Lanz would eventually be assigned to Army Group Don, that would not occur until 15 February. In the meantime. Manstein was in continual danger of being outflanked to the north and west. This made the rapid assemblying of his own operational reserve even more critical. Despite Manstein's prescient vision. It would be a race against time, the weather, and the Soviets themselves. 14 Until he could get the Fourth Panzer Army in position, he would have almost no operational flexibility and certainly would not be in a position to counterattack. Manstein knew that:

The constantly decisive factor in any shift of forces...is which of the two opponents gains the lead—in other words, which of than is offered the opportunity, by his own timely action, to seize the initiative at the crucial soot and

thereafter to dictate his own terms to the more slow-moving enemy, even when the latter is collectively the stronger. 15

Thus. by 6 February, Manstern was laying the foundation of an operational counterstroke which would not actually begin until 19 February, almost two weeks later. As he so aptly described the time and space relationship involved in maneuvering large units about the battlefield. "The greater one's sphere of command...the further ahead one must think. And the greater the distance to be covered and the formations to be moved, the longer is the interval that must elapse before the decision one has taken can produce tangible results." 16

Between the time when Hitler made the decision which would allow Manstein to constitute a credible reserve and the positioning of that reserve where it could be committed to the counterstroke, the crisis in the area of the Don Army Group, now called the Southern Army Group, reached a new climax. The gap between the First Panzer Army and the kharkov region was wide open to the Dnieper crossings and daye the Soviets almost complete freedom of action. "And yet, paradoxically, it was in this yery culmination of the crisis that the germs of a counterstroke lay." 17

Manstein had done his homework. By 19 February his armored forces were in position on both sides of the penetration of Sixth Army and Mobile Group Popov: the SS Panzer Corps had disengaged from its battle in kharkov and repositioned in the area of Krasnograd, the 48th Panzer Corps was assembling east of Pavlograd, and the 40th Panzer Corps had all but destroyed Mobile Group Popov near Krasnoarmesiskove and was prepared to

exploit its success. On 19 February. Manstein ordered his three panzer corps to execute the counterstroke.

### Weather vs. Mobility:

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The second principal factor, which inherently affected the first--availability and positioning of reserves--was the impact of the weather. Manstein anticipated its effect on operations just as he had with reserves. On 31 January, for example, when holding the bonetz was still an strategic imperative, at least from mitler's point of view, he realized that any attempt to relieve pressure on the southern wing in the vicinity of kharkov would have to be made before the Spring thaw. <sup>18</sup> Shortly afterwards, weather began to have a direct effect on when Manstein could strike back. By 4 and 5 February, as the Soviets were taking Isyum and pressuring Slavyansk, the First Panzer Army was still on the road from Rostov, several days away from being in position to affect the battle. He warming trend had caused the roads in the coastal region over which the Army was moving to become saturated thus delaying and hampering movement. Since the Fourth Panzer Army, his counterattacking force, would be following the First Panzer Army from the region of the lower Don. it became a race against time. 19 But conditions did not improve for the Fourth Panzer Army. As late as 17 February, its movement too was slowed by the terrible road conditions in the southern part of the Army Group sector. 20

Hitler, who wanted to retake Kharkov before doing after the Sixth

Army, feared that the operations of Manstein would get bodded down in the mud. Manstein acknowledged this possibility but felt that the weather arqued more strongly for the removal of the threat to the Dnieper crossings as a prior condition to retaking kharkov. 21 The sequence that would take into account both weather and the threat to his LOCs was (1) to take care of the problem between the Donetz and the Dniepr before the thaw set in, and then (2) to proceed to attack in the north where the thaw would have a later effect. The need to strike soon was further reinforced when Army Detachment Lanz reported on the 18th of February that the SS Totenkopf "Death's Head" Division was stuck in the mud on its way from Kiev. 22

Weather would continue to hip at the heels of Manstein's counterstroke, particularly in its second phase when he was exploiting his initial success by driving north to retake kharkov and Beigorod. Whereas he prayed for winter to continue, the Soviets hoped for a rapid thaw to stop, or at least slow, the German advance. He finally had to stop when the spring thaw turned the roads and countryside into a quadmire. 23

### Doctrinal Implications

orincipal doctrinal connection between Clausewitz's theoretical constructs on the operational-level detense and the practitioner of the operational art. Before we examine the doctrinal implications of Manstein's experience, an appreciation of the basic structure of operational art is needed to understand the context of the implications. It is appropriate to briefly layout its fundamental nature.

#### Operational Art:

According to FM 100-5, operational art translates the strategic aims of national policy into effective military operations and campaigns.

More specifically, it is the "employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations. 24 Of significance in this definition is not only the linkage among the different levels of war, out also the inclusion of both. Campaigns and major operations. Operational art can be practiced at several different echelons within a given theater of war which can sometimes obsure the linkage among the different levels of war.

The editor of Military Review recently offered a variation of the doctrinal definition. Colonel limmerman said.

The operational level of war encompasses the movement, support and sequential employment of large military forces in the conduct of military campaions to accomplish goals directed by theater strategy or a higher operational formation. <sup>25</sup>

Although I am inclined towards the latter definition because it includes three essential characteristics of operational art, "...the movement. support and sequential employment of large military forces..." both emphasize the theoretically subordinate relationship of war to policy and, thus, operational art to strategy.

Manstein demonstrated, however, that the relationship is actually a symbiotic one. During his winter campaign in south Russia in 42-41, he felt compelled by the operational circumstances to get Hitler to adjust the strategic goals on the Eastern Front to the operational realities facing the Don Army Group after the collapse of the allied armies and the annihilation of the Sixth Army at Stailingrad. He realized that Hitler is intransipence on yielding terrain would lead to even greater catastrophic loss. This is not an argument to suggest that Clausewitz is concept on the relationship of war and policy is invalid. Rather, in Manstein is case it was a question of avoiding defeat. He understood that unless immediate strategic and political goals were consistent with operational capabilities, higher national aims would be forfeited.

The linkage among the levels of war notwithstanding, the authors of FM 199-5 postulate three inclsive questions that, taken together, are at

the foundation of operational art. These are:

- -- What conditions need to be created to achieve strategic doals?
- -- What sequence of actions will produce those conditions?
- -- How should resources be applied to achieve that sequence of actions  $2^{26}$

The answers to these three questions must be the objectives towards which the efforts of operational-level forces converge.

### Doctrinal Comparisons:

The important questions to answer, and the ones towards which this paper has been developing, are:

- (1) How does our military doctrine compare to Manstein's operational detensive in February and March 1943?
- (2) What are the implications of Manstein's experience for the US Hrmv as it develops its own operational doctrine and style?

Ostensibly, we should be able to establish a historical connection, or demonstrate the difference, between previous success against our likely enemies and current operational doctrine with the objective of determining the adequacy of current operational concepts. Certainly, the Germans experiences on the Eastern Front are not the only historically relevant events to emerge from World War II; however, discounting the finns and the Japanese, theirs is probably the only relevant experience where the Soviets faced an operationally sophisticated army.

Consequently, it becomes instructive to understanding the dynamics of the

detense at the operational level.

Like our tactical doctrine, which states that "timing is critical to counterattacks," our operational doctrine makes several direct statements about timing counterattacks at the operational level. An examination of these statements and how they relate to Manstein's Winter Campaign is important to evaluating the adequacy of our current doctrine.

Counterattacking Early: The first statement that has timing implications is:

A successful defense consists of reactive and offensive elements working together to deprive the enemy of the initiative. An effective defense is never purely passive. The defender...seeks every opportunity to do over to the offensive. Early in a campaign or defensive battle, such opportunities will be local and limited. As the situation develops, they will become more numerous....When the attacker exposes himself, the defender s reserves or uncommitted forces counterattack.

While reactive measures may halt the enemy, early counterattacks improve the chances for success. The defense can oreatly damage the enemy only when early counterattacks accompany the reactive onase of the battle.  $^{\rm 27}$ 

Certainly. Manstein understood the dynamic relationship between attack and defense as Clausewitz described in <u>On War</u>: however, his ability to be other than reactive from early January until 19 February was severely hampered by the lack of operational reserves and the relative advantage in operational mobility enjoyed by the Soviets. Until he could muster an offensive element he had no flexibility to commit a counterstroke should the Soviets expose themselves by overextension, but he had anticidated

the Soviets presenting assailable flanks as they pressed forward across the Donetz toward the Dnieper. Although the Soviets were, in fact, overextended when he executed the counterstroke, it was a fortuitous condition as opposed to a product of deliberate timing.

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at the army group level no opportunity presented itself for early counterattacks; quite the contrary. Manstein was in a race against time. He could easily have been too late to be able to influence the outcome of the campaign by a counterstroke. His subordinate armies, however, did use local and limited counterattacks at the tactical level that vastly improved the chances for success at the army group level; for example, the First Panzer Army when it was fighting Mobile Group Popov. One could aroue convincingly that only because these local counterattacks occurred was Manstein ever to realize the eventual operational opportunity to deal a decisive blow in late February and March. Had the First Panzer Army not stopped the Mobile Group Popov. had Army Detachment Hollidt collapsed in the east, had the SS Panzer Corps not held for as long as it did in the vicinity of Kharkov, the outcome probably would have been considerably different. In fact, the likelihood of Manstein achieving any success at all would have been very slim. He probably would have been cut off from all resupply and would have run out of fuel long before the Fourth Panzer Army was in position on 19 February. The Soviets came much closer than they realized to defeating the southern wind of the German Eastern Front.

Some students of military doctrine at both the tactical and

operational levels are concerned that they might counterattack too early. Thereby forfeiting their reserve before the decisive point in the battle. Although, that could possibly happen, the chance of being early is extremely remote, particularly at the tactical level, and, if Manstein's experience is any indicator, at the operational level as well. The critical issue is not whether one will be too early, but whether or not one strikes the enemy's main effort before it is too late. The initiative remains with the attacker until the operational commander can identify the enemy's main effort as Manstein did. Although a certain degree of risk might be necessary in order to allow the enemy to expose his main effort, especially in NATO where Alliance policy precludes preemptive strikes across international boundaries, the sooner one can counterattack the better his chances of defeating the enemy piecemeal.

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The Offensive Culminating Point: A second doctrinal statement that carries implications on timing is. "Once the enemy has committed himself against the defense and has been weakened by losses, the defender maneuvers to destroy him with fires or counterattacks." 28 This statement really must be juxtaposed with another, that is:

"Defenders attempt to defer a decision in the campaion until they can fight on advantageous terms. This means that defending commanders must accurately sense the attacker's culminating point—that time when he has exhausted his offensive potential.... After this has been accomplished...the defender will be able to shift to the attack himself." 29

Notwithstanding the apparent contradiction with the statement about counterattacking early, these statements assume the prescient vision of

Clausewitz s military genius, or a directed telescope into the heart of the enemy s headquarters. Not that coup d'oeuil is a characteristic wholly missing from our army s leadership, but as Manstein put it so well when describing the development of his campaign plan as it pertained to the Soviets exhausting themselves before he would use the Fourth Panzer Army:

It was just not good enough to pin one's hopes on the enemy's becoming exhausted (great though his losses might well have been in attaks on German troops) or on his operations being brought to a premature halt by difficulties of supply. (...it had to be borne in mind that the enemy's attacks on allied armies had cost him very little and that he was far less dependent on supply and transport than we bermans were in enemy territory.) 30

Despite the theoretical notion about the diminishing force of attacks, even Clausewitz acknowledged the difficulty in identifying the enemy's offensive culminating point. But even if one could identify it, the real operational problem is predicting it. As we have seen, the operational commander must anticipate and set forces in motion well in advance of when he expects results, the actual length of time depending on the size of his formations, the distance they need to travel to be in position for commitment, and when and where he wants to counterattack at the operational level. Unlike the tactical level where size, space, and time considerations are relatively immediate with regard to responsiveness, the same does not hold true at the operational level. Consequently, the problem of identifying a culminating point is compounded. This lesson of history is particularly relevant for commanders in NATO. The likelihood of Soviet formations exhausting their

ottensive potential before the we reach own defensive culminating point is doubtful. We might be compelled to counterattack without regard to the relative strength or perceived disadvantage because we '... may take a choice between a slim chance for immediate success at great risk or a prolonged detense with no prospect of winning."

Control of the Attacker: A third doctrinal statement that carries implications on timing is. "Unce the attacker has been controlled, the detender can operate against his exposed flanks and rear. \*32 Control of an attacking enemy is elusive at best and, under most circumstances. probably will not exist at all. It implies that initiative is with the defender whereas the notion of counterattacking presupposes that initiative begins with the attacker; he generally chooses the time and place of the battle. In the process he can throw the defender off-balance by his choice of ground, direction of approach, or timing of his attack. Until 19 February, the Soviets had the initiative: they were dictating the terms of battle. The Germans, on the other hand, were about to counterattack to try to regain some of the initiative, although arguably, that did not really occur until the second phase of the operation. The first chase was really a reaction to the Soviets imminent disruption of the lines of communication and principally had as its object a "negative" aim as defined by Clausewitz. The Soviets had compelled the Germans to counterattack to maintain LOCs. Timing of the counterattack is driven in part. then, by precarious conditions existing as a result of an enemy's offensive and less by the deliberate choice of the defender.

#### Changing Conditions:

When comparing the events of February and March 1943 to current doctrine as it pertains to Central Europe, we must be cognizant of the differences between conditions as they existed then and those under which we will probably fight now, specifically: geography, force structures, political constraints and restrictions, and Soviet operational methods. Otherwise, we run the risk of applying blindly the empirical evidence of Army Group Don without considering conditions which tend to qualify the historical analogy. Although other distinguishing conditions might also effect current operational planning, these appear to be the most significant.

First, the geography of Central Europe is very different than that in southern Russia. The area between the Donetz and the Doneter was relatively open terrain with little venetation and a sparse population; Central Europe is hilly, heavily forested, and densely copulated. Even the north German plain, although relatively flat, is significantly more forested and more heavily populated. Mobility in Central Europe is often easier due to its modern road network, in contrast to the rucged. frequently impassable, dirt tracks that served as roads in southern Russia. Repositioning of reserves, therefore, can be much easier than it was for Manstein. On the other hand, as anyone who has participated in a Winter REFORGER can attest, the same impassable conditions can exist for orf-the-road movement in the central region during a wet. Spring thaw.

Notwithstanding the significant differences in geography, the relative mobility of the opposing forces as a function of weather and terrain is the same--they effect both sides equally.

Second, force structures have changed. In 1943. Army Group Don had tew armored or mechanized formations. Most of the infantry divisions were foot-mobile with only limited motorization. Consequently, Manstein felt that he would need all of his armored divisions for the counterblow and subsequent exploitation to retake Kharkov. 33 He had to accept dreat risk with the static elements of his defense in order to constitute a mobile reserve. In contrast, today's formations in Europe, on both sides, provide mobility for the entire force that was absent in 1940. The speed inherent in total mobility enables concentration of reserves and accelerates closure of follow-on echelons such that it shortens the windows of opportunity for counterstrokes by the operational commander. Paradoxically, this increased mobility creates a situation in which the commitment of operational reserves to a particular course of action co-opts the flexibility for a change in mission at the operational level that it enables at the tactical level. The cumbersome logistical tail alone will "drive the train" under many circumstances. For the NATO commander, the situation is further complicated by the nature of the alliance. Whereas Manstein fought an essentially bure German army proub. the NATO army group commander is faced with the problems of floating a disparate, multi-national force against an opponent dominated by Soviet equipment and methods. Each nation s equipment, proanizational structure, and operating methods make interoperability difficult. The

relative flexibility between the two opponents clearly leans in tayor of the Warsaw fact. What is quite similar, however, is the lack of operational reserves. The NATO commander, like Manstein, will have to create reserves from the forces at hand, and in a similar manner, that is, by stripping forces from less threatened sectors despite the increase in risk.

Third, the political constraints and restrictions as they effect operational flexibility are significantly different. Manstein was initially faced with the rigid intransigence of Hitler on relinguishing terrain, the effect of which was the delay in withdrawing to the Mius and, consequently, the near catastrophy of his lines of communication being cut. Despite this initial restriction, he was able to convince Hitler of its operational necessity and then had a relatively free hand in implementing his plan. One could hypothesize that Hitler's eventual acquiescence and Manstein's insistence were due, in part, to the fact that it was not home territory. He had the potential decto to his rear without threatening the territorial integrity of German, itself. BATE s dilemma, on the other hand, is the political realities of defending on the borders of West Germany, the spectre of nuclear escalation, and the defensive nature of the Alliance. Planning for preemptive strives and cross-border operations in order to add dreater operations, desch of non-west German soil is not politically acceptable. But neither is relinguishing territory.

Finally. Soviet operational methods have continued to excise.

Although by the Spring of 1947 the Soviets were applying the bard learned leasons of Phase One of the breat Patriotic War, they would continue to develop operational methods that did not reach their centralis world be li until the Manchurian Campaign in 1945. Nor did they storemere. The Soviets have vigorously pursued further developments since the war. In dontrase to 1945, they not a developments since the war, in dontrase to 1945, they not a developments operations, and strategic echelons, multiple main attacks openetrations, and fully integrated to develop as war warrare, including the air forces, spetzhaz, and chemical much a much broader spectrum of warfare and enemy capabilities which only serve to complicate his decision-making on when, where, and how to commit his scarce operational reserves in a decisive counterstroke.

### Conclusion

The conclusions to be drawn from doctrine should not be taken as categorical statements of incontrovertible truth that apply to all situations. Unfortunately, that seems to be a predilection of the U.S.Armv--to ascribe dogmatic veracity to doctrinal literature. Whereas that might be possible at the tactical level in a very limited way. it cannot apply at the operational level at all. if for no other reason than operational art deals primarily in future tense as opposed to the tactical present. The characteristics of each situation will dictate which factors should be given greater weight in making a particular decision within the context of a specific campaign or major operation, must as they did for Manstein over forty years ago. History is replete with examples of commanders who tried to apply formulas rigidly but who failed miserably because they forgot to treat each situation individually. I do not mean to suggest that Manstein's experience either validates or invalidates the doctrinal statements in FM 109-5, nor the converse. Rather, his experience provides historical analogy against which to evaluate the efficacy of the ideas contained in the field manual. Although, the implications of the manual do not wholly reflect Manstein's experience, they certainly have provided us thoughtful examination.

As we have seen. Manstein considered at least five principal factors in determining when he was going to strike the counterplow:

(1) The overwhelming superiority of the Soviets.

- (2) The relative freedom of action enjoyed by the Soviets.
- (3) What he expected the Soviets to do.
- (4) The availability and positioning of operational reserves.
- (5) The weather as it effected mobility.

Underlying these basic considerations, however, was Manstein's incredible grasp of operational art. His ability to consider effectively these factors in order to time the counterstroke was the product of his understanding of the three fundamental issues which constitute operational art: (1) the conditions needed to achieve strateoic goals. (2) the sequencing of intermediate actions that might produce those conditions, and (3) the application of resources to achieve that sequence of actions. Furthermore, Manstein, perhaps better than anyone else, could anticipate how a campaign would develop, had the determination to follow his judgment, could sequence major actions towards an ultimate objective, knew how to concentrate his combat power, and throughout, had the personal flexibility to adjust his plan to the exigencies of the situation as the campaign developed. As a result, he was able to retain his focus on the destruction of the Soviets' operational center of gravity—the enemy force.

As we have seen, the statements in FM 100-5 which make direct assertions about timing are not wholly supported by Manstein's experience in his Winter Campaign of 1943. This does not invalidate those abstract doctrinal concepts, rather it reflects the interdependent relationship of the myriad conditions of warfare. The concepts of counterattacking when the enemy exposes himself, when he reaches his offensive culminating

point, or when he has been controlled are all valid. Conceptually. Manstein understood them: however, he looked to other, more specific factors to quide his decision-making. Our doctrine, in fact, addresses each of Manstein's major considerations as well as many others that could effect a timing decision, such as, surprise, deception, logistics, and rear operations. The doctrinal shortfall is in demonstrating the potential effect of specific factors on the timing decision; our doctrine provides the factors but not their relationship to timing. Is the doctrine, therefore, insufficient? Only to the degree that the universal concern about striking a decisive blow at the critical time and place should be described as a function of specific factors as well as a function of theoretical constructs.

The experience of Manstein teaches us that timing the operational counterstroke depends not on some prescriptive "right" time, but rather on assessing each situation seperately with full appreciation for the manueverino of large units. Deciding when to counterattack at the operational level becomes a problem not of what or how much information a commander needs to make the decision, but one of making the decision within the context of the battle itself, consistent with the fundamental nature of operational art.

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At the operational level, the critical factors which determine the timing of a counterstroke are those which affect: (1) the conditions needed to achieve strategic goals, (2) the sequencing of intermediate actions that might produce those conditions, and (3) the application of

resources to achieve that sequence of actions. The implication of Manstein's experience for the U.S. Army in light of these three fundamental issues is not to develop prescriptive doctrine, but for us to study history to understand how past masters of the art have made their decisions so that we might broaden our experiential base in preparation for the next war. An operational commander, today, needs to deletop his ability to "see" the battlefield, to come as close as possible to Claisewitz's military denius so that he can anticipate the "windows of opportunity" that will enable him to defeat the Soviets. Much of the information available to him will be contradictory, but he must learn see through the form of war. At the operational level, doctrine can only suddest considerations for the commander's judoment. The commander must draw the appropriate inferences and conclusions.

### ENDNOTES

- 1. Carl von Clausewitz. <u>On war</u>, edited and translated by m. Howard and P. Paret (Princeton: Princeton University Press. 1976), p. 370.
- 2. U.S. Army doctrine only defines the term "counterattack", whereas other literature generally uses three terms to refer to counterattacks at different levels of war: (1) "counterattack" at the tactical level. (2) "counterstroke" at the operational level, and (3) "counteroffensive" at the strategic level.
- 3. Clausewitz, b. 380.
- 4. F.W. von Mellenthin. R.H.S. Stolfr. and E. Sobik. NATO Under Attack. (Durham. NC: Duke University Press. 1984). op. 6 7.
- 5. Wallace P. Franz. "Large-Unit Manuever." Unoublished Manuscript. c. 15.
- o. Paul Carell. Scorched Earth: The Russian German War. 1943 1944. (New York: Ballentine Books, 1973), p. 191.
- 7. Erich von Manstein. Lost victories, edited and translated of H.G. Powell (1938: reprint. Novato, California: Presidio Press, 1981). G. 399.
- 8. Ibid., p. 392.

- 9. [bid., p. 370.
- 1v. Ibid., p. 409.
- 11. Ibid., p. 373.
- 12. Ibid., p. 400.
- 13. Ibid., p. 408.
- 14. Carell. p. 191.
- 15. Manstein. o. 410.
- 15. Ibid., p. 409.
- 17. Ibid., p. 429.
- 18. Ibid., p. 401.
- 19. <u>Ibid.</u>, p. 405.

- 20. Ibid., p. 418.
- 21. Ibid., p. 424.
- 22. Ibid., p. 426.
- 23. David M. Glantz. "From the Don to the Dnepr: A Study of Soviet Offensive Operations. December 1942 August 1943." Unpublished Manuscript. (U.S. Army War College, 1984). pp. 54 55.
- 24. U.S. Department of the Army, Operations, FM 100-5 (Final Draft), (Ft. Leavenworth, KS: CGSC, 1985), p. 2-2.
- 25. Frederick W. Timmerman, Jr., "From the Editor." Military Review, October, 1985, p. 1.
- 26. FM 100-5, p. 2-3.
- 27. Ibid., p. 8-2.
- 28. Ibid., p. 8-5.
- 29. Ibid., p. 9-3.
- 30. Manstein, p. 401.
- 31. FM 100-5, p. 9-6.
- 32. Ibid., p. 8-11.
- 33. Manstein, p. 426.

### BIBLIOGRAPHY

- Armored Warfare in World War II. Transcript of a conference featuring F.W. Von Mellenthin, May 10, 1979. Contract No. DAAK40-78-C-0004. Columbus, Ohio: Battelle Columbus Laboratories Tactical Technology Center, 1979.
- Careli, Paul. Scorched Earth: The Russian German War, 1943 1944. New York: Ballentine Books, 1973.
- Clausewitz, Carl von. <u>On War</u>. Edited and translated M. Howard and F. Paret. Princeton: Princeton University Press, 1976.
- Erickson, John. The Road to Berlin: Continuing the History of Stalin's War With Germany. Boulder, Colorado: Westview Press, 1983.
- Franz. W. "Large-Unit Manuever." Unpublished Manuscript.

- Generals Balck and Von Mellenthin on Tactics: Implications for NATO Military Doctrine. Contract No. DNAOO1-78-C-0114. BDM Corporation. 1980.
- Glantz. David M. "From the Don to the Dnepr: A Study of Soviet Offensive Operations, December 1942 August 1943." Unpublished Manuscript. U.S. Army War College, 1984.
- ----- "The Great Patriotic War and the Maturation of Operational Art: 1941 1945." Unoublished Manuscript. U.S. Army War College, 1985.
- . <u>Hugust Storm: The Soviet 1945 Strategic Offensive in Manchuria.</u> Leavenworth Papers. No. 7. Ft. Leavenworth. Kansas: Combat Studies Institute, CGSC, 1983.
- Manstein, Erich von. <u>Lost Victories</u>. Trans. A. G. Powell. Novato. California, 1982.
- Mellenthin, Major General F. W. Fanzer Battles: A Study of the Employment of Armor in the Second World War. Trans. H. Betzler. Norman. Oklahoma: University of Oklahoma Press. 1971.
- Mellenthin, F.W., Stolfi, R.H.S., and Sobik, E. NATO Under Attack. Durham, North Carolina: Duke University Press, 1984.
- Schultz. General Friedrich. Reverses on the Southern Wino (1942 1943).
  U.S. Armv. Europe. Historical Division. German Manuscript Series T-15.
  Reprinted for Art of War Colloquium. Carlisle Barracks: U.S. Armv War College. 1983.

- Timmerman, Frederick W. Jr. "From the Editor" Military Review. Vol 65. October, 1985.
- Translation of "Taped Conversation with General Hermann Balck. 12 January 1979." Contract No. DAAK40-78-C-0004. Columbus. Ohio: Battelle Columbus Laboratories Tactical Technology Center. 1979.
- Translation of "Taped Conversation with General Hermann Balck, 13 April 1979." Contract No. DAAK40-78-C-0004. Columbus. Ohio: Battelle Columbus Laboratories Tactical Technology Center, 1979.
- ----- Corps Operations. FC 100-15. Ft. Leavenworth. Kansas: CGSC. 1984.

- ------ Operations. FM 100-5 (Final Draft). Ft. Leavenworth, kansas: CGSC, 1985.
- . Theater Army. Army Group, and Field Army Operations. FC 100-16-1. Ft. Leavenworth, kansas: CACDA, 1984.
- ------ The Soviet Army: Operations and Tactics. FM 190-2-1. Washington, D.C.: U.S. Government Printing Office, 1984.
- wentzell. Fritz. Combat in the East. European Command. Historical Division. German Manuscript Series 8-266. Reprinted for Art of War Colloquium. Carlisle Barracks: U.S. Army War College, 1983.
- Ziemke. Earl F. Stalingrad to Berlin: The German Defeat in the East. Washington, D.C.: Center of Military History, U.S. Army, 1984.

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